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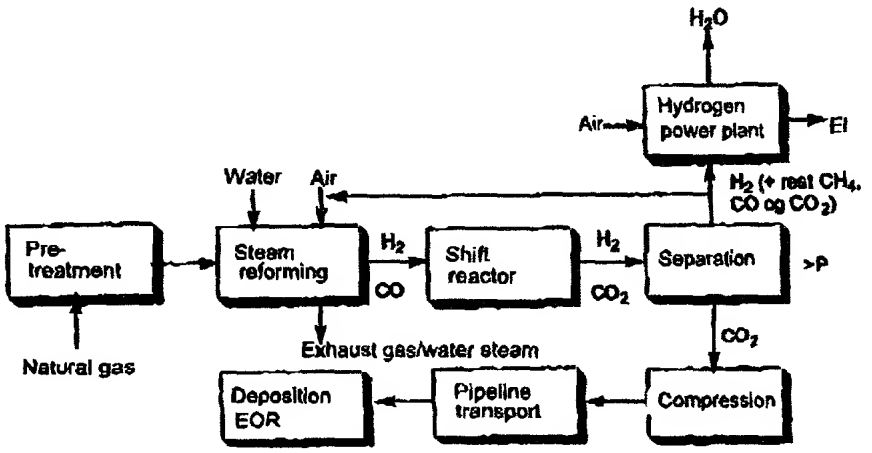
(54) Title: PROCESS FOR PREPARING A H_2–RICH GAS AND A CO_2–RICH GAS AT HIGH PRESSURE



shows known technique in the form of steam reforming with hydrogen firing

(57) Abstract

The present invention comprises a method for production of a CO_2–rich gas stream and a H_2–rich gas stream, the method comprising the following steps: a) natural gas and water are fed to a reforming reactor and are converted to synthesis gas under supply of a O_2–containing gas; b) the gas stream from a) is shifted, whereby the content of CO is reduced and the amounts of CO_2 and H_2 are increased by reaction of H_2O; c) the gas stream from b) is separated in a separation unit into a CO_2–rich and a H_2–rich gas stream, respectively. The invention also concerns the use of a CO_2–rich gas stream for injection into marine formations, and the use of a H_2–rich gas stream for hydrogenation, as a source of energy/fuel in fuel cells or for production of electricity.